CCS Technical Documentation
NSB-9 Series Transceivers

General Information

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NSB-9 Product Selection

The **NSB-9** is a dualband radio transceiver unit designed for the GSM850 and GSM1900 networks. GSM850 power class is 4, GPRS850 power class is 5 and GSM1900 power class is 1. It is a true DCT-4 based transceiver with new advanced features.

NSB-9 Product and modules

Name	Module name	Module code
Basic transceiver	NSB-9	0508623
Radio module	RM9	0202046
Flip	NHL-6 Flip	0262868
Flip	NSB-9 Flip basic LTA	9458924
	NSB-9 Flip basic CAN	9459047
Mechanics assembly parts	NSB-9 HDB58	0262884
Software module (basic SW)	SW NSB-9 basic mech.module	0243727

Figure 1: NSB-9 transceiver

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Accessories List

Batteries	**Product code:**
Semi-fixed Battery BLC-2 1000mAh	0670403
Chargers	**Product code:**
Travel Charger ACP-12E (EUR)	0675294
Travel Charger ACP- 12X (UK)	0675296
Travel Charger ACP-12U (US) Made in country	0675303
Travel Charger ACP- 12UB (US) (Countries like Brazil/Portugal)	0675293
Travel Charger ACP-12G (US) (Countries like Brazil/Gradient)	0675295
Travel Charger ACP-12K (Korea)	0675301
Travel Charger ACP-12AR (Argentina)	0675298
Travel Charger ACP-12A (Australia)	0675300
Mobile Charger LCH-12	0675328
Note! ACP-7, ACP-8, and LCH-8 chargers are also compatible with NSB-9	
Portable and Office Accessories	**Product code:**
Boom Headset HDB-4	0694094
Stereo Headset HDS-3	0694093
Loopset LPS-4	0630443
DCV-14 Connectivity Stand	0273869
DT-1 Music Stand	0694119
Mobile Accessories:	**Product code:**
Mobile Holder MBC-13L	0650048
Swivel Mount HHS-15	0620060
Car Installation Kit 126 CARK126 (Full Car Kit providing charging) Handsfree Unit HFU-4 HF Microphone HFM-8 External HF Speaker HFS-12 Mounting Plate MKU-1 System Cable SCU-4 Power Cable PCU-4	0085197 0694103 0690016 0692009 0620036 0630471 0630478
Other Accessories:	**Product code:**
Connectivity Cable DKU-5 (FBUS /USB Cable)	0730235
PC Suite	
Carrying accessories	

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Technical Specifications

General Specifications of Transceiver NSB-9

Unit	Dimensions (mm) (L x W x T)	Weight (g)	Volume (cm^3)
NSB-9 Transceiver with BLC-2 battery pack	55 x 117 x 22.5	122	105

Parameter	Unit
Cellular System	GSM850, GSM1900
RX Frequency Band	GSM850: 869.2 - 893.8 MHz GSM1900: 1930.2 - 1989.8 MHz
TX Frequency Band	GSM850: 824.2 - 848.8 MHz GSM1900: 1850.2 - 1909.8 MHz
Output Power	GSM850 : +5 ...+33 dBm / 3.2 mW ... 2 W GSM1900: +0 ...+30 dBm / 1.0 mW ... 1 W
Number of RF Channels	GSM850: 124 GSM1900: 299
Channel Spacing	200 kHz
Number of TX Power Levels	GSM850 *: 15 GSM1900: 16

Talk time	
Battery : BLC-2	up to 4.5 hours
Talk time variations:	
Integrated Handsfree (IHF) talk time	up to 4 hours
Standby time	
Battery: BLC-2	up to 10 days (240 hours)
Radio + headset	up to 30 hours
Radio + IHF	up to 16 hours

Variation in operating times may occur depending on SIM card, network and usage settings, usage style and environments.

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Environmental conditions

Environmental condition	Ambient temperature	Notes
Normal operation	-10 °C ... +55 °C	Specifications fulfilled
Reduced performance	+55 °C ... +65 °C	Operational only for short periods
Intermittent operation	-20 °C ... -10 °C and +65 °C ... +80 °C	Operation not guaranteed but an attempt to operate will not damage the phone
No operation	-40 °C ... -20 °C	Operation not possible but an attempt to operate will not damage the phone
No operation or storage	< -40 °C and > +80 °C	No storage; an operation attempt may cause permanent damage
Charging allowed	-25 °C ... +60 °C	
Long term storage conditions	0 °C ... +40 °C	

Transceiver Features

Transceiver main HW parts / features include:

- Dual band GSM 850/1900
- FM Stereo Radio
- Passive matrix colour display 4096 colours (128x128 pixels used in applications i.e. Series 40, active area 30.8mm x 30.8mm), Display brightness control
- 4-way joystick
- ITU-T keypad and full alphanumeric keyboard
- Side volume keys, also used in integrated handsfree mode to control the speaker volume
- Internal antenna
- Internal vibra
- Integrated handsfree (IHF)
- Speech Codecs: FR, EFR, AMR
- Real time clock (RTC)
- Pop-Port (TM) connector

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Electrical Characteristics

Absolute Maximum Ratings

Parameter	Min.	Typical	Max.	Unit
Battery Voltage, Idle	-0.3		5.0	V
Battery Voltage, Call	-0.3		4.8	V
Charger Input Voltage	-0.3		16	V
Charging Current			850	mA

Supply Voltages

Parameter	Min.	Typical	Max.	Unit / Notes
Battery Voltage	3.1	3.6	4.2	V / SW cut-off 3.2 V

Current Consumption

Condition	Min.	Typical	Max.	Unit
Call GSM 850 GSM 1900		 250 280		mA
Idle		2.5-3.5		mA
Power off			150	µA

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